



Swiss expansion joint systems

Our high-quality expansion joint systems in use around the world.

RedLINE®



Soba Inter AG

Soba Inter AG provides solutions for high-quality construction products that ensure optimum solutions to physical challenges when it comes to sealing off buildings. For decades, the established joint tapes have been the flagship product, especially RedLINE and FlamLINE. Soba Inter AG produces various certified products at its own plants in Switzerland, thus guaranteeing consistently high quality.

Product variety with Swiss quality

A joint tape is only as good as the elastic material it contains. Special elastic rubber compounds have been developed for the Soba Inter products, which make the products unique and guarantee a long working life for the joint tapes. Soba Inter AG complies with quality standards in accordance with ISO 9001 and 14001. Our products are used in a wide range of ambitious buildings all over the world and deliver real customer satisfaction.

EpoLINE®



FlamLINE®



Titanic Belfast



Swiss Embassy, New Delhi



LANXESS Arena, Cologne



Main Station Vienna



Vancouver Convention Centre



The Alpina Gstaad



Microsoft Campus, Redmond

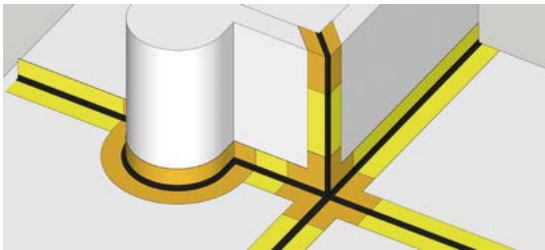


Burj Khalifa, Dubai



Efficient system solutions for three-dimensional joint movements since 1976

Building components are permanently exposed to strong strains such as temperature fluctuations, earthquakes, and other physical conditions. These affect the volume and the composition of the materials used as well as the substance of the buildings, and can cause symptoms of fatigue or breakages with catastrophic consequences. Soba Inter AG provides high-quality solutions to ensure sustainable building quality.



The expansion joint system without weak points thanks to vulcanization

Vulcanization is a process for increasing the durability of elastomers through pressure, time and temperature. All FlamLINE, RedLINE and EpoLINE form pieces are vulcanized into a monolithic system without any weak points.

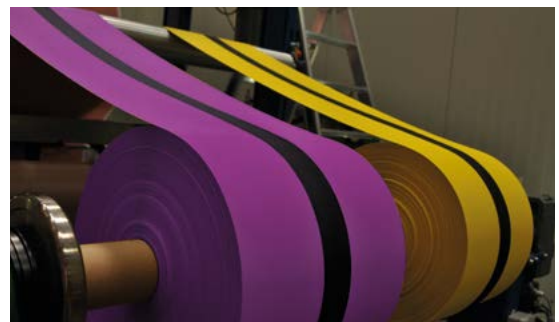
The advantages of our expansion joint systems

- Tapes and form pieces are supplied as fully fabricated systems
- Economic to fit thanks to prefabricated, precision-fit expansion joint tapes
- Easily follows the line of any joint
- Smooth fitting without loops or bulges
- No complex substructure thanks to sandwich installation
- Very high resistance to building vibrations (e.g., in the event of an earthquake)
- Force-fit connections with bitumen strips, epoxy resin adhesives and many liquid bonds, e.g. PMMA etc.
- On site vulcanization possible
- Special metal connection pieces for connections to metal work

Bespoke joint tapes

Ongoing research and development into new materials and processing methods is one of our core principles. We put intensive research into the long-term durability of our products, their compatibility with drinking water and food, and their behavior in contact with oils.

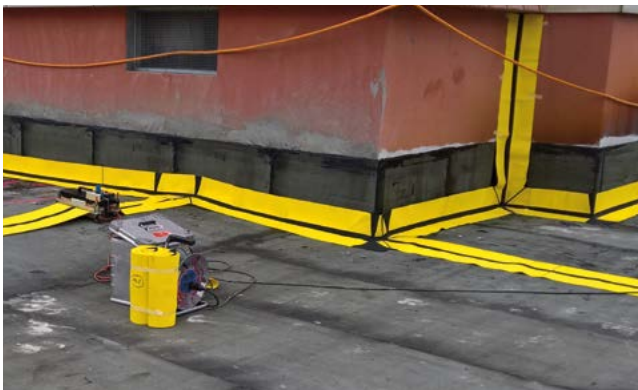
Please feel free to contact us if you have an individual requirement or a special request that is not covered by our existing joint tapes, or if you wish to have a product made in your corporate colors. We would be happy to produce a bespoke solution.



From practical experience, for practical use: classic applications

Expansion joints on flat roofs

The sealing of expansion joints on flat roofs is a decisive step for ensuring the durability and proper sealing of a roof. Expansion joints are necessary in order to allow the roof material and/or substrate to expand due to changes in temperature and other environmental conditions. Expansion joints can be planned across a surface, along balustrades and mounted facade elements, and also on different types of structures.



Joints in underground parking garages

Often, not enough attention is paid to these joints, meaning leaking joints are an everyday occurrence. Expansion joints are essential in underground parking garages in order to prevent costly damages and renovations, and also to increase the working life of the structure. Expansion joints are found both across the surface and along buildings, including residential developments, stadiums and shopping malls.

Expansion joints for parking levels

Expansion joints allow for the parking level to react to thermal expansion, contraction and stresses caused by vehicles without the seal becoming cracked or damaged. The materials used can also be affected by contaminated water and saltwater brought into the parking level by the vehicles. It is therefore very important to choose the correct materials for the seal. The expansion joints can be arranged both on the edge and across the surface.



Expansion joints in special structures

Expansion joints in artificial structures such as railway and road bridges are not only exposed to thermal expansion, but also to loads caused by heavy goods transport. This is in addition to contaminated water and saltwater, which can cause corrosion and additional damage to the bridge structure. As a result, the durability of the products used for protecting the structure is of great importance. Expansion joints can run along and across the carriageway. During installation, it is essential that the individual layers and construction heights are coordinated in order to define the best possible system solution.

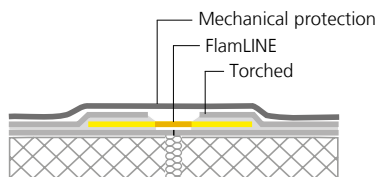
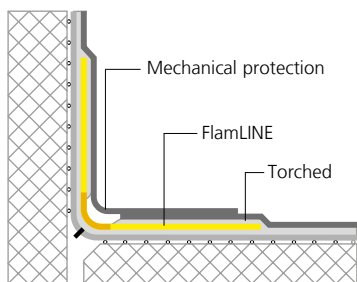
FlamLINE® – the Swiss expansion joint system for torching

FlamLINE is the latest-generation joint tape for bridging expansion joints between building components. The high-resistance quality tape made of high-quality rubber offers highly efficient and safe fitting.

FlamLINE®

Optimized for all applications

The FlamLINE joint tape seals all joint areas occurring along building transitions. The joint tape is either delivered prefabricated with all form pieces based on local building component dimensions or assembled on site.



Bond flanges

The two bond flanges on the sides are reinforced with a support. A flame is used to torch this bond flange to the bituminous seal or it is glued directly to the substrate (e.g., concrete or steel) with epoxy resin adhesive to form a force-fit connection.

Elastic expansion zone

The support-free expansion zone to absorb the movement of building parts forms the center of the joint tape. This is positioned along the joint. Depending on the tape type, movements of up to 240 mm are possible.

Material properties

The elastic material for FlamLINE consists of a butyl elastomer with a range of properties:

- Outstanding resistance to ozone contamination
- Impervious to radioactive radon
- Very good long-term heat resistance (up to 90 °C)
- Very good flexibility at low temperatures (down to -40 °C)

General resistance to chemicals:

- Very good against alkali, diluted acids, and saline solutions
- Excellent against water vapor
- Very good resistance to polar solvents such as alcohol and ketone

Resistance to nonpolar plasticizers and solvents (e.g., mineral oils, petrol, fuels, and aromatic compounds such as toluene) is low. Continuous contact with these substances is to be avoided.

Short-term contact with naked flames or mastic asphalt during the installation phase is possible without compromising the material's properties.

Technical details FlamLINE

Features	Unit	Test standard	Test values
Elastomer base		ISO 1629	IIR
Color			yellow/black
Density	g/cm ³	ISO 2781	1.47–1.51
Hardness	Shore A	ISO 48-4	55
Tensile strength	N/mm ²	ISO 37	> 5
Elongation at break	%	ISO 37	> 600
Tear resistance	N/mm	DIN ISO 34-1	> 8
Water vapor permeability at a thickness of 2.6 mm	g/(m ² *d) (μ value)	Based on DIN 53122	0.16 approx. 270,000
Fire rating		DIN EN 13501-1	Building material class E

Simple torch fitting

FlamLINE joint tapes are efficient and safe to fit. The bond flanges on the side are torched to the bituminous surface seal in a sandwich construction by means of a direct flame, or glued directly to the substrate (e.g., concrete or wall) with epoxy resin adhesive or liquid bond to form a force-fit connection.



FlamLINE joint tapes are generally delivered prefabricated with all form pieces on a project-specific basis. For installations in several stages or for very long building joints that make handling more difficult, the specially developed vulcanization device can be used to assemble the system on site. Ask our technical services department directly about the options available (info@soba-inter.com).



Simple and practical corner formats for efficient fitting to the building.



Optimum adjustment of FlamLINE to building structures to secure the seal of the building.



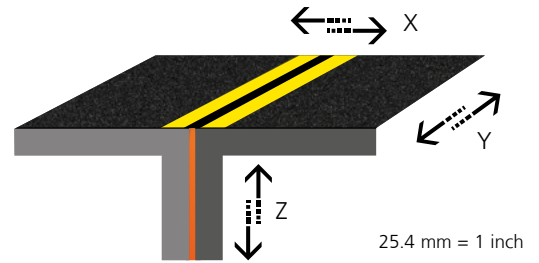
Consistent FlamLINE joint seal over a number of corners and levels.



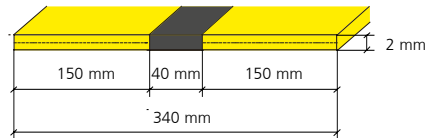
Wide range for varied applications for bridging joints

Building parts vibrate in all directions, depending on the substrate composition, influences from adjacent infrastructures, or earth movement.

The FlamLINE product range provides an optimum flexible joint connection for a very wide range of lateral (X), longitudinal (Y), and vertical (Z) movements.



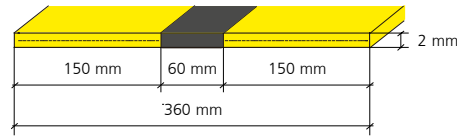
FlamLINE 20



- X Lateral movement max. ± 20 mm
- Y Longitudinal movement max. ± 20 mm
- Z Vertical movement max. ± 20 mm

Vr Max. resulting displacement = 34 mm

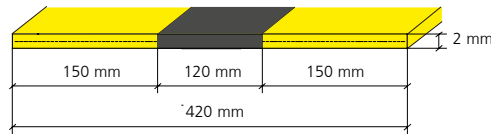
FlamLINE 40



- X Lateral movement max. ± 40 mm
- Y Longitudinal movement max. ± 40 mm
- Z Vertical movement max. ± 40 mm

Vr Max. resulting displacement = 69 mm

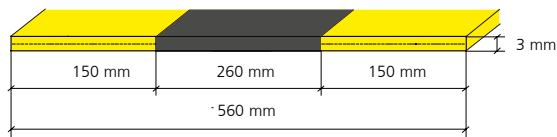
FlamLINE 100



- X Lateral movement max. ± 100 mm
- Y Longitudinal movement max. ± 100 mm
- Z Vertical movement max. ± 100 mm

Vr Max. resulting displacement = 173 mm

FlamLINE 240 G



- X Lateral movement max. ± 240 mm
- Y Longitudinal movement max. ± 240 mm
- Z Vertical movement max. ± 240 mm

Vr Max. resulting displacement = 415 mm

Special plate transition and interim pieces for connection to metal work.



Enclosures can easily be vulcanized into the FlamLINE joint tape.



Optimum seals, even underground for tunnels and other projects.



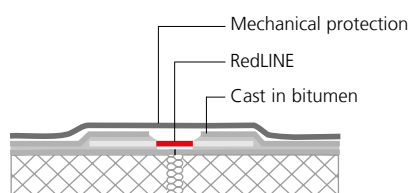
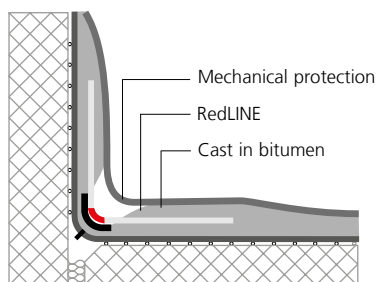
RedLINE® – the Swiss expansion joint system for pouring

RedLINE is the classic joint tape made of quality rubber for bridging expansion joints between building components. The conventional laying method using liquid hot bitumen means this expansion joint system can provide quick and safe installation of outstanding quality.

RedLINE®

Optimized for all applications

The RedLINE joint tape seals all joint areas occurring along building transitions. The joint tape is either delivered prefabricated with all form pieces based on local building component dimensions or assembled on site.



Bond flanges

The two bond flanges on the sides are clad with a special fleece. These bond flanges are cast directly onto the bituminous seal with hot bitumen. Depending on the installation position, they can also be joined directly to the substrate with epoxy resin adhesive or liquid bond to form a force-fit connection.

Elastic expansion zone

The expansion zone without fleece cladding absorbs the movement of building parts. It forms the center of the joint tape and is positioned along the joint. Depending on the tape type, movements of up to 240 mm are possible.

Material properties

The elastic material for RedLINE consists of an EPDM elastomer with a range of properties:

- Outstanding resistance to ozone contamination
- Very good long-term heat resistance (up to 90 °C)
- Very good flexibility at low temperatures (down to -40 °C)

General resistance to chemicals:

- Very good against alkali, diluted acids, and saline solutions
- Good against water vapor
- Good resistance to polar solvents such as alcohol and ketone

Resistance to nonpolar plasticizers and solvents (e.g., mineral oils, petrol, fuels, and aromatic compounds such as toluene) is low. Continuous contact with these substances is to be avoided.

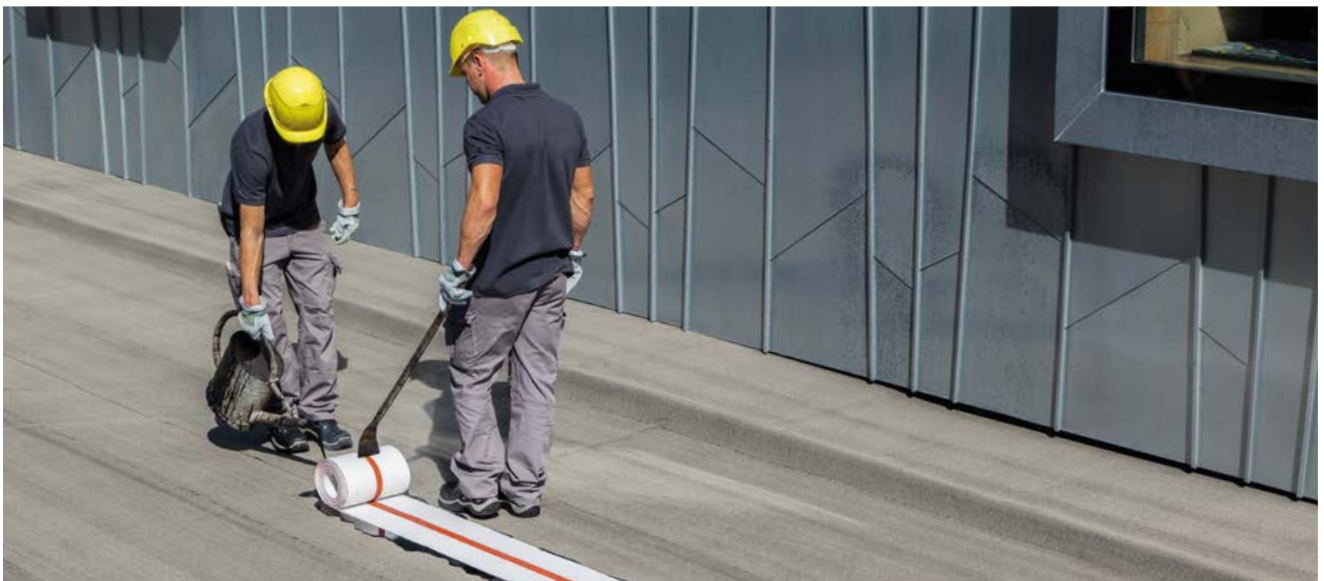
Short-term contact with hot bitumen or mastic asphalt during the installation phase is possible without compromising the material's properties.

Technical details RedLINE

Features	Unit	Test standard	Test values
Elastomer base		ISO 1629	EPDM
Color			red/white
Density	g/cm ³	ISO 2781	1.0-1.1
Hardness	Shore A	ISO 48-4	45
Tensile strength	N/mm ²	ISO 37	> 10
Elongation at break	%	ISO 37	> 500
Tear resistance	N/mm	DIN ISO 34-1	> 5
Water vapor permeability at a thickness of 2.2 mm	g/(m ² *d) (μ value)	DIN 53122	< 3 approx. 270,000
Fire rating		DIN EN 13501-1	Building material class E

Simple cast fitting

RedLINE joint tapes are simple and safe to fit. They are cast with liquid hot bitumen between the bituminous surface seal or joined directly to the substrate (e.g., concrete or wall) with epoxy resin adhesive or liquid bond to form a permanent force-fit connection.



RedLINE joint tapes are generally delivered prefabricated with all form pieces on a project-specific basis. For installations in several stages or for very long building joints that make handling more difficult, the specially developed vulcanization device can be used to assemble on site. Ask our technical services department directly about the options available (info@soba-inter.com).



Prefabricated tapes with all form pieces for user-friendly fitting.



Combination of various tape types (e.g., transitions RL 100 G – 40).



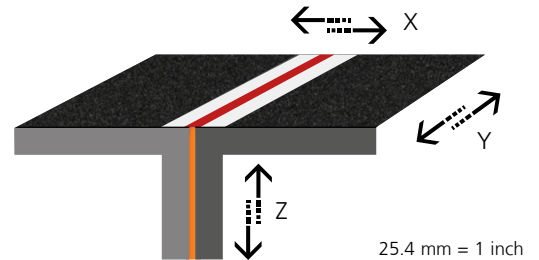
Enclosures can be vulcanized into the tape.



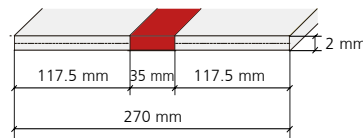
Wide range for varied applications for bridging joints

Building parts vibrate in all directions, depending on the substrate composition, influences from adjacent infrastructures, or earth movement.

The RedLINE product range provides an optimum flexible joint connection for a very wide range of lateral (X), longitudinal (Y), and vertical (Z) movements.



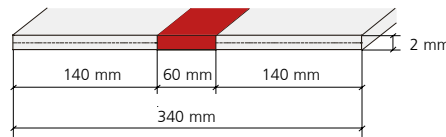
RedLINE 20



- X Lateral movement max. ± 20 mm
- Y Longitudinal movement max. ± 10 mm
- Z Vertical movement max. ± 15 mm

Vr Max. resulting displacement = 26 mm

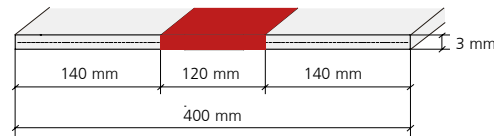
RedLINE 40



- X Lateral movement max. ± 40 mm
- Y Longitudinal movement max. ± 20 mm
- Z Vertical movement max. ± 30 mm

Vr Max. resulting displacement = 53 mm

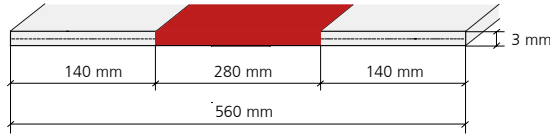
RedLINE 100 G



- X Lateral movement max. ± 100 mm
- Y Longitudinal movement max. ± 50 mm
- Z Vertical movement max. ± 75 mm

Vr Max. resulting displacement = 134 mm

RedLINE 240 G



- X Lateral movement max. ± 240 mm
- Y Longitudinal movement max. ± 120 mm
- Z Vertical movement max. ± 180 mm

Vr Max. resulting displacement = 323 mm

With vulcanized flat turns, the tapes can be easily adapted to any changes of direction.



Safe sealing of building transitions between old and new buildings.



RedLINE is applied directly to concrete with epoxy resin adhesive to form a force-fit connection.



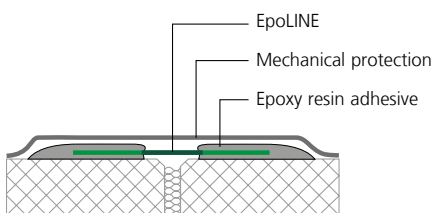
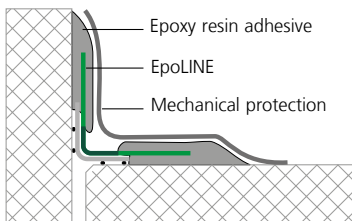
EpoLINE® – the Swiss expansion joint system for installation in epoxy resin

EpoLINE is a rubber joint tape. It is used for bridging three-dimensional joint movements between dilating building parts. Prefabricated based on the local building component dimensions, the tape system allows quick and safe fitting of joint seals.

EpoLINE®

Optimized for all applications

EpoLINE consists of an elastic section and two bond flanges on the sides. These are applied with epoxy resin adhesive to form a permanent seal. This concept separates the functions of "movement absorption or expansion" and "incorporation into the epoxy resin adhesive".



Direct gluing of the joint tape to the concrete surfaces.



Angled installation with prefabricated form piece.

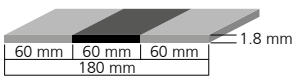
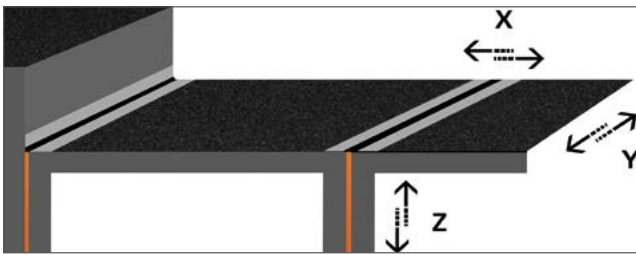


Bond flanges

The bond flanges on the sides are reinforced with a support and ensure a force-fit connection with the sealing system. Owing to the narrow width of the flanges, EpoLINE is only applied onto the substrate (concrete, steel) with epoxy resin adhesive.

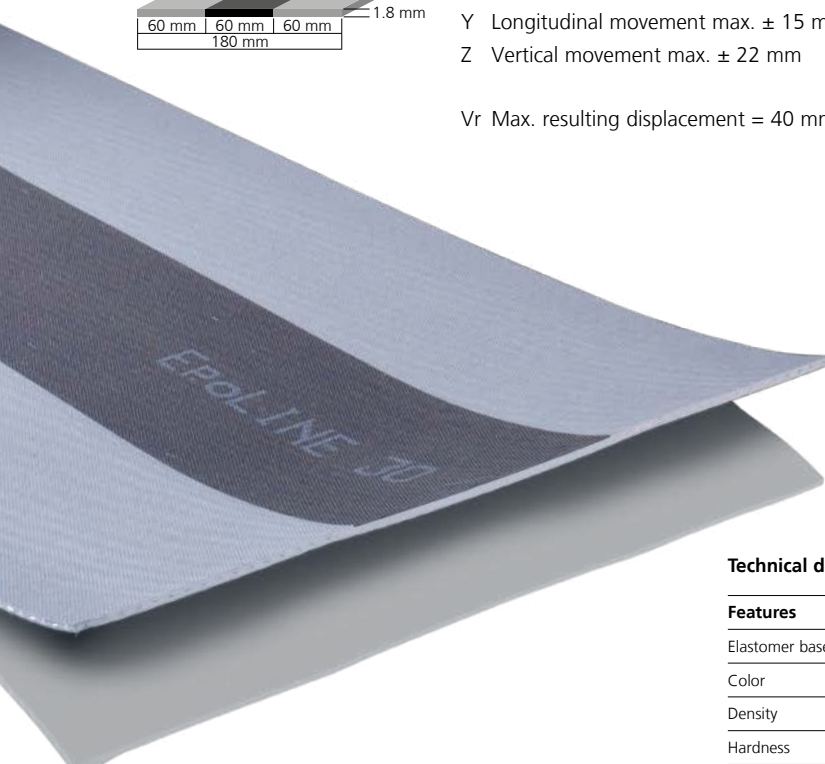
Elastic expansion zone

The highly elastic expansion zone forms the center of the joint tape. This is positioned over the joint. Movements of up to 30 mm are possible.



- X Lateral movement max. ± 30 mm
- Y Longitudinal movement max. ± 15 mm
- Z Vertical movement max. ± 22 mm

Vr Max. resulting displacement = 40 mm



Material properties

The elastic material for EpoLINE consists of an IIR elastomer with a range of properties:

- Outstanding resistance to ozone contamination
- Impervious to radioactive radon
- Very good long-term heat resistance (up to 90 °C)
- Very good flexibility at low temperatures (down to -40 °C)

General resistance to chemicals:

- Good against alkali, diluted acids, and saline solutions
- Good against water and water vapor
- Good against polar solvents such as alcohol and ketone

Resistance to nonpolar plasticizers and solvents (e.g., mineral oils, petrol, fuels, and aromatic compounds such as toluene) is low. Continuous contact with these substances is to be avoided.

Technical details EpoLINE

Features	Unit	Test standard	Test values
Elastomer base		ISO 1629	IIR
Color			gray/black
Density	g/cm ³	ISO 2781	1.47–1.51
Hardness	Shore A	ISO 48-4	55
Tensile strength	N/mm ²	ISO 37	> 5
Elongation at break	%	ISO 37	> 600
Tear resistance	N/mm	DIN ISO 34-1	> 8
Water vapor permeability at a thickness of 2.6 mm	g/(m ² *d) (μ value)	Based on DIN 53122	0.16 approx. 270,000
Fire rating		DIN EN 13501-1	Building material class E



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